DOCUMENT RESUME

ED 356 233 TM 019 625

AUTHOR Seaton, Thomas
TITLE The Effectiveness of Test Preparation Seminars on Performance on Standardized Achievement Tests.
PUB DATE [92]
NOTE 12p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Achievement Gains; *Achievement Tests; Aptitude Tests; *College Entrance Examinations; Comparative Testing; Females; High Schools; *High School Students; Pretests Posttests; Scores; *Seminars; *Standardized Tests; *Test Coaching; Test Wiseness; Tutoring; White Students
IDENTIFIERS *American College Testing Program

ABSTRACT

Opinions about the purpose and effectiveness of test preparation seminars vary, but it is clear that preparation for standardized tests is here to stay. The literature suggests that students do benefit from preparation for standardized tests. The effect of test preparation seminars on standardized achievement tests was studied for 30 of 100 high school juniors from Queen of Peace High School (Burbank, Illinois), who participated in a 10-hour preparation program for the American College Test (ACT). All subjects were female and most were white. The pretest consisted of retired copies of the ACT, and the posttest was the current ACT. As hypothesized, there was a gain in posttest scores. These gains were consistent with others found in the literature. Findings suggest that students may be wise to take some form of test preparation seminar before taking standardized achievement tests like college entrance examinations. The literature further suggests that preparation for aptitude tests should differ from that for achievement tests. (SLD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED356233

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
[X] This document has been reproduced as received from the person or organization originating it.
[ ] Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
THOMAS G. SEATON
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

THE EFFECTIVENESS OF TEST PREPARATION SEMINARS ON PERFORMANCE ON STANDARDIZED ACHIEVEMENT TESTS

Thomas Seaton

For a number of years, reports have revealed that American students have a difficult time taking standardized tests. For many years test scores have declined, leaving parents and educators frustrated and searching for ways to improve this situation. One solution that educators have utilized is that of test preparation seminars, also called coaching for standardized tests.

Entrance exams for college are critical. If we focus on the secondary level in terms of test preparation and test taking skills, a student's entire future life might be different. The ability to score well on the ACT-American College Test, does, in many cases, determine the type of college a student will attend. This, in turn, will influence many life choices, and we as educators should have our students as well prepared as possible to face competition and challenges at the university level.

Across the country, school systems are developing various methods of test preparation, from in-house curricular programs, to in-house extracurricular programs, to student enrollment in commercial coaching schools. Based on the available information, educators can determine the benefits of test preparation. They can select a program they wish to use, and make important decisions regarding funding and implementation of such programs.

These decisions will shape future curricular directions and influence post-secondary school choices for our students. Universities will open their doors to students whose new test-taking abilities will impact various facets of the educational programs the university has to offer. We need to respond to the needs of our students, whose very future often depends upon a single score on one standardized test.

In the arena of test preparation seminars, there is great debate over whether coaching for a single test should be done, rather than teaching test-taking skills. Opinions are divided, with concern on whether coaching for a test will influence student performance artificially. Length of test preparation seminar and area of focus is also of great concern. There is also some question as to the type of training, as achievement and aptitude tests are different.

One thing is certain: test preparation is here to stay. Hundreds of millions of dollars are spent annually to purchase test preparation materials.

TM019625

RELATED STUDIES

Berliner (1986) says that the skills taught in test preparation seminars leads to test-wiseness, that is, "student ability to use characteristics of the test and the test-taking situation to an advantage. Test-wiseness exists independently of the knowledge a person has about a subject matter."

Many argue that there is no standard definition of test preparation, and educators feel this can cause problems in regard to the content of the test preparation program. Are we teaching test content, or are we teaching test-taking skills? This debate raises ethical concerns for some educators. Many say that there is no substitute for quality instruction, and many question the authenticity and accuracy of scores achieved as a result of a test preparation program.

Another concern is equity of access to test preparation programs. Will schools everywhere have the resources with which to offer these programs to all students? Commercial programs are cost prohibitive for many students, leaving them dependent upon the school to provide some test preparation option.

Finally, the question arises as to when the test preparation should take place. Many teachers feel that instructional time is at a premium as it is, and taking time out for test preparation would have overall negative effects on students.

As reasonable and strongly voiced as these opinions are against test preparation, there are also some very strong opinions in favor of preparation of students for standardized tests. One reality is that educators feel increased pressure from administrators to improve the standing of a class, school, or district. This is almost measured by student performance on standardized tests.

Another factor in favor of teaching test-taking skills to students is the fact that many teachers are not good test makers. This being the case, students are not taking tests that closely resemble standardized tests, therefore, they are not developing the needed skills to perform well on standardized tests. It is believed that if students are recipients of test preparation seminars, they will be able to learn skills that will remain with them and improve with experience. At the same time, students will perform well on college entrance exams and have a greater number of options available to them.

Finally, the reality of college requirements and acceptance levels tells educators that their students need to be as well prepared as possible as they enter an increasingly competitive pool of college applicants.

What kinds of programs have been utilized, and what are the findings regarding test preparation for standardized tests?

Coplan and O'Rourke (1988) report that the DeKalb County School System in Decatur, Georgia has implemented a test preparation program. This program was implemented to increase scores on the SAT, the Scholastic

Aptitude Test. The SAT is widely used throughout the country for college admission, and being an aptitude test, it tests a student's ability to apply concepts learned. Educators adapted various SAT programs for their disciplines, to familiarize students with SAT expectations. In addition, a summer test preparation seminar was offered. The seminar drew fifty -six students from sixteen different high schools for an intensive, eight-day, thirty-two hour experience in content review and SAT test-taking techniques. Seminar participants gained an average of 109 points between the pretest and posttest assessments on a sample SAT. Since the development of this program, systemwide scores showed an increase, with some schools gaining as many as fifty points.

Pallone (1961) conducted a study with academically talented students, those with an IQ of 115 or above. He determined that "to improve skills on the SAT-Verbal, instruction of a developmental nature was indicated." In his short-term program, the students studied reading skills, intensive reading, shimming, word analogies, and critical reading. The mean gain of the group was 98.3 points; moreover, those who initially had scored below the national SAT-Verbal median of 500 showed the greatest improvement.

Pallone also initiated a long-term program that included the study of logic, inferences, verbal analogies, vocabulary, critical reading, and speed reading. Students enrolled in the program had an average gain of 121.9 points on the SAT-Verbal. Normal expectations in gains from eleventh to twelfth grade were estimated to be about thirty-five points. Pallone found that long term preparation produced greater gains.

Kintisch (1970) matched pairs of high school juniors on the basis of similarity of SAT scores. An experimental group took forty hours of reading instruction in a two week period. The control group did not take any additional instruction. The results of the posttest SAT-Verbal showed that both groups had higher SAT scores in the Senior year, but the experimental group increased thrity-five points, whereas the control group increased twenty-one points.

Marion (1965) conducted a study of 700 high school graduates who were involved in a seven month preparation program to raise test scores. the students increased their SAT scores by an average of fifty-eight points on the SAT-Verbal, and seventy-nine points on the SAT-Mathematics section. The mean gain on the SAT-Verbal was 41.1 points above the expected 16.5 gain over the six months between tests.

Another study by Worsham and Austin (1983) investigated the effects of a cognitive skills program on the scores of blacks from a large urban school system. Students attended a pilot program of two classes each week for three consecutive semesters. The results were highly significant at the .001 level in the vocabulary, comprehension, and the total score sections of the SAT. The experimental group had a mean increase of forty-two points in total verbal scores and moved to the 40th percentile in national ranking, fifteen percentiles higher than the control group. Worsham and Austin concluded that the continunity of a sustained program enhanced student performance.

Stanley H. Kaplan Educational Center is a commercial test preparation agency, one of the oldest in the business of offering test preparation seminars for a variety of standardized tests. Kaplan has found significant gains on both the SAT and ACT college entrance exams for students who have taken the Kaplan preparation program. Since the SAT measures aptitude and the ACT is an achievement test, there has been discussion that coaching for these tests would yield different results. It has been believed that coaching for the SAT would not be as effective as coaching for the ACT. It has also been believed that coaching for the ACT would increase scores artificially because the ACT tests for information already learned. Kaplan (1992) has found that although the SAT and ACT test different areas, test preparation does raise scores on both, but does not inflate ACT scores. Kaplan has concluded that students who take the Kaplan test preparation seminar raise scores and perform at a rate accurate to their ability.

Downs, Kulik, and Kulik (1983) conducted a study to test the effectiveness of coaching programs on achievement tests. As the ACT is an achievement test, this study is of great importance. Along with Kaplan, Downs, Kulik, and Kulik found that test preparation for achievement tests does help raise scores, and the gains are accurate with student ability.

In twenty-five of thirty studies, coaching programs had a positive effect on achievement on standardized tests. In nine of these studies, the effect of coaching was reported to be significant; no study was reported to demonstrate a negative effect. Downs, Kulik, and Kulik found that coaching would raise the typical student's score from the fiftieth to the sixtieth percentile.

Downs, Kulik, and Kulik also found that the length of coaching time would correlate with the size of the coaching effect. The average gain for the short test preparation seminar was .17, while it was .43 for longer coaching programs, and it was .66 for programs that were of long duration and intense in nature.

When comparing aptitude to achievement tests, Downs, Kulik, and Kulik report that one might expect an effect of coaching of approximately .45 standard deviations for the more coachable aptitude tests. The opinions are divided in terms of length of coaching time and performance on aptitude tests. Several studies showed shorter coaching time was more beneficial, while others had the opposite results, that a longer coaching time was more favorable for greater gains.

The Hampstead High School District in Long Island, New York initiated a test preparation program using computer aided instruction. Fifty-five students participated in this program, with approximately one-half attending a test preparation seminar without computer aided instruction, and one-half receiving computer aided instruction. The computer software programs were designed to help students become better test-takers. The students who used the software averaged thirty-five points higher on the SAT. Those who did not have benefit of the computer had an increase of ten points. Silverman and Dunn (1983)

concluded that not only do test preparation programs have a positive effect on test performance, but different methods of preparation may impact students differently, yielding even greater gains.

Williamson and Monroe (1983) make an important distinction between test preparation and method of test preparation. They state that cramming, that is, "desperately trying to learn at the last minute what should have been learned and studied over several years is not likely to help much." They do agree that test preparation can be helpful, and in studies conducted testing method of test preparation, different methods of instruction produced different results. Both Williamson and Monroe (1983) believe that in addition to test content, test preparation programs should include familiarity with test-taking procedures, relieving test anxiety, offer programs of varying lengths, and offer computer aided instruction.

Samson (1985) reports that in a quantitative synthesis of test preparation seminars and achievement test performance that length of test preparation programs have a great effect on student achievement. Training programs which continue for five weeks or longer produce significantly greater average gains than programs conducted for shorter periods of time. Programs lasting from five to seven weeks yielded a mean effect size of nearly double that of those of a duration of one week or less.

Samson (1985) conducted studies with sub-groups, to determine the relationship between test preparation programs and their effect on various sub-groups. He tested for gender, ethnic background, socioeconomic level of the student, geographic area of the country, and the type of community a student comes from. The results revealed that there were no significant differences from sub-group to sub-group. All performed better on the posttest taken at the end of the test preparation seminar. No one sub-group did better that another.

Literature on research relating to the effects of test preparation seminars and performance on standardized tests was abundant. The literature seems to suggest that test preparing students for the successful taking of standardized tests can help students score higher on standardized tests. The literature presents the discussion on the effectiveness of test preparation on both achievement and aptitude tests. Although it appears that it may be easier to coach students for achievement tests rather than aptitude tests, most studies found that test preparation does produce gains on both types of tests. It appears that the question is not does coaching help but how much does coaching help students?

Many variables were studied, including gender, student ability, socio-economic status, geographic region, and length of the test preparation program. The findings seem to suggest that all sub-groups can benefit from test preparation seminars, and the literature also seems to point to the fact that the longer the time of preparation, the more beneficial for the student, and the greater the gain on

the standardized test. In the area of coaching for aptitude tests, opinions are mixed regarding length of time and performance, but the literature seems to say that all benefit from some form of test preparation program. Method of instruction was also studied, with very favorable results pointing to a structured, teacher centered program, but the literature also seems to suggest that computer aided programs can be of great assistance as well.

The purpose of this study is to determine whether test preparation seminars effect performance on standardized achievement tests.

PROCEDURES

Every year parents and students are invited by letter from the guidance department to participate in a test preparation seminar. This letter is sent to students in their Junior year, as they are preparing to take college entrance exams.

The population for our study will include 100 high school Juniors who attend Queen of Peace High School in Burbank, IL. The students are all female, with a racial and ethnic mix, with the majority being white. All students will have been participants in a ten hour ACT test preparation seminar program offered before ar after school on campus at Queen of Peace. Data will be provided by school records. The single group pretest posttest design was used. From the population of 100, thirty will be randomly selected. The pretest consisted of retired copies of the ACT test. The posttest was the actual ACT test, that is, the current version offered.

The findings were tabulated in terms of means and standardized deviations. The t Test With Rotation Group Designs was employed at the .05 level of confidence to determine if there is any significant gain from pretest to posttest score on standardized achievement tests, in this case the ACT test.

Findings of the Study

The problem of the project is to determine what the effect of test preparation seminars is on performance on standardized achievement tests.

The samples for the study included thirty randomly selected high school juniors from a population of 100. These 100 students had been participants in a test preparation seminar to prepare for the American College Test, (ACT). The students are students at Queen of Peace High School, and completed a ten hour test preparation seminar.

The school records served as the source for the data for this study.

The findings were tabulated in terms of means and standard deviations. The t Test With Rotation Group Designs was used to determine if there was a gain in pretest to posttest scores on the ACT test, as influenced by the Test preparation seminar. The following table summarizes the statistical analyses.

Means, Standard Deviations, and t Test With Rotation Group Design To Determine pretest to posttest gain as influenced by test preparation seminar.

Pretest		Posttest		
M	19	M	23	
SD	2.9	SD	3.3	*t=7.2

df = N-1 = 29
with p of .05, t = 2.04
2.04 < 7.2

*significant at the .05 level

Therefore, the null hypothesis is rejected.

The pretest consisted of retired copies of the ACT test. After the pretest, the samples recorded a mean score of 19. After the posttest, the samples recorded a mean score of 23. Employing the t Test With Rotation Group Designs yields a t (score) of 7.2. At the .05 level of confidence, t = 2.04, therefore there is a significant gain in posttest scores from pretest scores. These findings lead us to reject the null hypothesis, which states that there will be no significant gain from pretest to posttest scores on achievement tests, as influenced by test preparation seminars. We can then accept the research hypothesis, which states that there will be a gain in posttest scores from pretest scores on standardized achievement tests, as influenced by test preparation seminars.

The findings of this study are consistent with what the literature suggests. In study upon study, students showed gains on standardized

achievement tests, after having participated in some kind of test preparation seminar.

Down, Kulik, and Kulik (1983) conducted a study to test the effectiveness of coaching programs on achievement tests. Down, Kulik, and Kulik found that test preparation for achievement tests does help raise scores, and the gains are accurate with student ability.

In twenty five of thirty studies, coaching programs had a positive effect on achievement on standardized tests. In nine of these studies, the effect of coaching was reported to be significant; no study was reported to demonstrate a negative effect. Down, Kulik, and Kulik found that coaching would raise the typical student's score from the fiftieth to sixtieth percentile.

Stanley H. Kaplan Educational Center, one of the oldest in the business of offering test preparation seminars, has found significant gains on ACT for students who have taken the Kaplan preparation course. Kaplan has found that the preparation does raise scores, but does not inflate them. Kaplan has concluded that students who take the Kaplan test preparation seminar raise scores and perform at a rate accurate to their ability.

Samson (1985) conducted studies with sub-groups, to determine the relationship between test preparation programs and their effect on various sub-groups. He tested for gender, ethnic background, socioeconomic level of the student, geographic area of the country, and the type of community a student comes from. The results revealed that there were no significant differences from sub-gropu to sub-group. All performed better on the posttest taken at the end of the test preparation seminar. No one group did better than another.

These findings imply that students would be wise to take some form of test preparation seminar before taking achievement tests, in this the ACT, as the project looks at college entrance exams. Today's institutions of higher education are increasingly more expensive, and the competition for scholarship money is fierce. Those who have been well-prepared will have a better opportunity to receive the benefits of their preparation. Scholarships aside, entrance to some universities may become a reality for some as a result of having been prepared for the entrance exam. There appear to be many advantages to taking test preparation seminars.

There are other directions that researchers could explore regarding this topic. First of all, there still is controversy regarding teaching to the test or teaching skills in test taking. It would be beneficial to conduct studies to determine the differences on preformance, if there are any, based on the kind of test preparation a student receives. This also brings up the question of curricular development in the area of test preparation, and test taking skills.

Length of coaching programs seems to yield different results, and test coaches could look at the question as to what end they wish to attain in their test coaching. If test preparation time does in fact influence

performance, then test coaches have to be sure that the coaching does not produce results that are unrealistic and inaccurate.

Finally, research needs to be done to determine if there needs to be different types of coaching for different types of standardized tests. There seems to be some evidence to suggest that achievement and aptitude tests need different types of preparation, and different lengths of time of preparation. These pieces of information would be crucial, as not all universities offer the ACT as their entrance exam. The SAT is offered at many universities, and is an aptitude test, and the literature seems to suggest that the preparation needs to be different.

References

Berliner, David, & Casanova, Ursula, "Should Students be Made Test-Wise?" Instructor, February, 1986, 22-23.

Caplan, Marlene K., & O'Rourke, Thomas J. "Improving Student Achievement on Standardized Tests: One Approach." NAASP Bulletin, February, 1988, 54-58.

Cook, Donald H., "How To Raise Students' Standardized Test Scores--From A to Z." Contemporary Education, 58 (4), 216-219.

Dempster, Frank N. "Synthesis of Research on Reviews and Tests." Educational Leadership, April, 1991, 71-75.

Drowns-Bangert, Robert L., Kulik, James A., & Kulik, Chen-Lin C. "Effects of Coaching Programs on Achievement Test Performance." Review of Educational Research, 53 (4), 571-585.

Drowns-Bangert, Robert L., Kulik, James A., & Kulik, Chen-Lin C. "Synthesis of Research on the Effects of Coaching for Aptitude and Admissions Tests." Educational Leadership, January, 1984, 80-85.

George, Pamela. "Coaching for Tests: A Critical Look at the Issues." Curriculum Review, September/October, 1985, 23-25.

George, Pamela. "Coaching For Standardized Tests: Efficacy and Ethics." Mathematics Teacher, September, 1987, 424-426.

Hymel, Glenn M., & Hymel-Guedry, Linda. "Promoting Study Skills and Test-Taking Techniques." NAASP Bulletin, October, 1987, 97-100.

Koenke, Karl. "Test-Wiseness: Programs and Problems." Journal of Reading, February, 1988, 480-484.

Lowe, Richard B. "Express Preparation for the SAT." The Clearing House, February, 1990, 85-86.

McManus-Luger, Barbara, "A Comparison of College Admissions Tests-The SAT and ACT." The Clearing House, May/June, 339-341.

Noble, Candace A., & Mullen, Kenneth B., "The ACT Assessment in the 1990's." The Mathematics Teacher, January, 1992, 85 (1), 22-25.

Peltier, Gary L., "Empowering Students to Improve Their College Admission Test Scores." Educational Leadership, January, 1989, 163-165.

Pope, Sara. "Helping Students Prepare For The Future-An SAT Preparation Program." Media & Methods, January/February, 1988, 62.

Powers, Donald E., "Who Benefits Most From Preparing for a Coachable Admissions Test?" Journal of Educational Measurement, Fall, 1987, 24 (3), 247-262.

Reynolds, Arthur J., Oberman, Geraldine L., & Perlman, Carole. "An Analysis of a PSAT Coaching Program for Urban Gifted Students." Journal of Educational Research, February, 1988, 81 (3), 155-163.

Samson, Gordon E., "Effects of Training in Test-Taking Skills on Achievement Test Performance: A Quantitative Synthesis." Journal of Educational Research, May/June, 1985, 78 (5), 261-265.

Silverman, Stan, & Dunn, Sandra. "Raising SAT Scores." Electronic Learning, April, 1983, 51-55.

Williamson, Ray A., & Monroe, Jean G., "Getting Your Kid Into College." Personal Computing, October, 1983, 140-147.

Wilson, Timothy L., & Coyle, Linda. "Improving Multiple-Choice Questioning: Preparing Students for Standardized Tests." The Clearing House, July/August, 1991, 422-425.